Remarks

Claims 1-15 and 17-18 are pending in this application. Claims 1-15 and 17-18 are believed to be patentable.

Claims 1 and 5 stand provisionally rejected on the ground of non-statutory obviousness-type double patenting as being unpatentable over claim 49 of co-pending application number 10/714,121. Applicants note the provisional rejection, and will consider filing an appropriate terminal disclaimer in the event that the conflicting claim is patented.

Claims 1-15 and 17-18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (U.S. Pub. No. 2004/0015566) in view of Lal (U.S. Patent No. 6,684,204).

The invention relates to document processing systems, and to storing and retrieving individual images in a document processing system. The invention involves a document processing system having an improved image-indexing scheme.

Claim 1, for example, recites a document processing system having at least one computer running system software that interfaces with transport hardware to provide document control and capture document images and document data in various formats. An image file stores a plurality of captured document images for subsequent retrieval on an individual basis. The system includes a computer readable storage medium storing the system software.

The system software on the medium further comprises instructions for indexing the image file by creating an index file. The index file contains indexing data for the captured document images. In accordance with the invention, the index file is in the form of a self-describing document wherein elements describe the indexing data for the captured document images to allow subsequent retrieval of the captured document images on an individual basis.

The remaining independent claims, namely, claims 5, 9, and 13 recite similar subject matter. The dependent claims recite further aspects of the invention.

The cited prior art fails to describe or suggest the claimed invention. Anderson does describe document images. Anderson fails to describe or suggest an index file in the form of a self-describing document wherein elements describe the indexing data for the captured document images to allow subsequent retrieval of the captured document images on an individual basis, as claimed.

The Examiner acknowledges Anderson's failure to disclose an index file in the form of a self-describing document, as claimed, and relies on Lal as a secondary reference. Applicants believe that Lal fails to overcome the shortcomings of the primary reference, Anderson, and that Anderson and Lal still fail to suggest the claimed invention.

Lal is about indexing an XML document collection, but does not describe an index file in the form of a self-describing document as claimed. Lal describes conducting a search on a network which includes documents having a plurality of tags. As described by Lal, and as illustrated in Figure 7, Lal is about indexing XML documents. More specifically, Lal is about indexing a collection of XML documents 110 by creating hash-table index 115 and tree index 116. That is, Lal is teaching the creation of indexes *for an XML document collection.* There is no suggestion of an index file *in the form of a self-describing document.* Lal illustrates a hash-table index in Figure 8, and illustrates a tree index in Figure 9. These indexes in Lal are described at Col. 5, ll. 7-35.

In the final action mailed March 8, 2007, in response to Applicants' previous arguments, the Examiner states that Lal teaches an index file in the form of a self-describing document in accordance with the document type definition file. Applicants respectfully disagree.

The Examiner states that Lal discloses XML tags as being metadata, and states that the XML tags are self-describing. Applicants agree that Lal does disclose XML documents, and that XML tags are self-describing.

The Examiner further states that Lal discloses a document type definition. Applicants agree that Lal discloses DTD files.

The Examiner states that a DTD file is in the form of a self-describing document. Applicants respectfully disagree with the Examiner. A DTD file is a definition that specifies the structure of an XML document, and defines tags that go in the document, the number and sequence of tags, the attributes that tags can have, and so on. Accordingly, the DTD file defines a structure of an XML document, and the XML document is a self-describing document.

The Examiner further states that Lal discloses two types of indexes, a hash table index and a tree index. The Examiner goes on to state that, therefore, Lal teaches an index file in the form of a self-describing document. In this regard, Applicants respectfully disagree with the Examiner's interpretation of Lal. Specifically, the Examiner seems to be stating that because the hash table index and tree index are generated based on the XML documents (and DTD files), the index files themselves are therefore in the form of self-describing documents as claimed. Applicants respectfully disagree.

The claims specifically recite that the index file contains indexing data for the captured document images, and is in the form of a self-describing document wherein elements describe the indexing data for the captured document images to allow subsequent retrieval of the captured document images on an individual basis. The hash table index and the tree index in Lal do not describe these claimed features.

The hash table index, as shown in Figure 8, is a flat index of pointers to elements in a document object model. The hash table index does contain the names of tags that

occur in the XML documents; however, the hash table is only a table of names and pointers, and is not a self-describing document.

With regard to the tree index, the tree index does contain the names of tags that occur in the XML documents, and does reflect the basic structure of the XML document and the document type definition associated with the XML document. Nevertheless, the tree index is simply a tree index containing pointers. The tree index is not in the form of a self-describing document.

The hash table index and the tree index do function as indexes for XML documents. However, the hash table index and the tree index themselves are not in the form of self-describing documents. *The fact that the indexes contain the names of tags that occur in the XML documents, and in the case of the tree index, maintain the context of the tags, does not result in the conclusion reached by the Examiner that these indexes are themselves in the form of self-describing documents.*

For the reasons given above, Applicants respectfully disagree with the Examiner and maintain the position that the cited prior art does not describe all claim limitations. In particular, the relied upon combination of references fails to suggest the claimed feature of an index file in the form of a self-describing document where elements describe the indexing data for the captured document images to allow subsequent retrieval of the captured document images on an individual basis. The Examiner relies on Lal for this feature; Lal describes indexes for an XML document collection but there is no suggestion of an index in the form of a self-describing document let alone any suggestion to use such an approach in the system of Anderson.

In any event, Applicants believe that there is no motivation to combine the references. First, neither reference describes the claimed index file in the form of a self-describing document. Further, Lal describes searching XML documents; the claimed invention

is about indexing captured image data using an index file, and is not about searching XML documents.

In the final action, the Examiner states that Anderson discloses that the captured data are in XML, but does not explicitly disclose indexing of XML data. The Examiner goes on to state that Lal teaches indexing of XML data and maintains the rejection.

Applicants respectfully point out that the claimed invention is not about indexing of XML data, but rather the claimed invention is about indexing a plurality of captured document images that are stored in an image file for subsequent retrieval on an individual basis, wherein the index file is in the form of a self-describing document. That is, the Examiner is making statements about Lal's indexing of XML data; however, the invention is not about the indexing of XML data.

It appears that the Examiner is stating that Anderson could be modified in view of Lal to index captured data that are in XML. Such modification still does not achieve the claimed invention. Applicants respectfully point out that the claims recite an index file for indexing captured document images stored in an image file, as opposed to merely reciting the indexing of XML data.

For the reasons given above, claims 1-15 and 17-18 are believed to be in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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Date: _April 12, 2007_

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